

REMARKS

1. Office Action Summary

Prior to entry of this amendment, claims 1-14 and 16-20 are pending. Claims 1, 9, 19 and 20 are independent claims. In the Office Action dated September 17, 2003, the Examiner finally rejected claims 1-11, 14 and 16-20 under 35 U.S.C. § 102(b) as being anticipated by Kimura et. al (U.S. 5,651,724). Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kimura et al.

2. Summary of Interview

A telephonic interview was held between the Examiner and the attorney for the Applicant on December 22, 2003. All pending claims were discussed as a whole. The prior art that was discussed was U.S. 5,651,724 to Kimura et. al. Agreement was not reached with respect to the claims as they were in their form at the time of the Interview. However, the Examiner indicated that she would be agreeable to considering an Amendment after Final Rejection that had amendments directed to the downward force applied to the semiconductor wafer being applied exclusively by the spindle. No other matters were discussed.

3. Claim Rejection – 35 U.S.C. § 102

The Examiner rejected claims 1-11, 14 and 16-20 under 35 U.S.C. § 102(b) as being anticipated by Kimura et. al. Applicant respectfully traverses this rejection. Kimura et al. discloses a substrate holder assembly for immobilizing a substrate during polishing. Pressure is applied to a wafer during polishing by holding the wafer against an abrasive cloth on a turntable well as by the application of an pressurized air to a space above the wafer and the application of water that has been applied to the backside of the wafer prior to polishing.

Claims 1, 9, 19 and 20

Applicant has amended claims 1, 9, 19 and 20 to state that the spindle applies a downward mechanical force is applied exclusively by the spindle to the semiconductor wafer during planarization. Unlike claims 1, 9, 19 and 20, Kimura et al. does not apply a downward force through the exclusive use of the spindle. Kimura et al. discloses an additional downward

force that is applied via pressurized air supplied by an external source and by water applied to the back side of the wafer prior to polishing (Col. 5, lines 55-59 and col. 6, lines 55-64). The pressurized air supplied by the external source and water have to be applied separately to the backside of the wafer prior to the polishing process. Thus, Applicant respectfully asserts that every element of claims 1, 9, 19 and 20 are not disclosed by Kimura et al. and therefore requests that these rejections be withdrawn.

Claims 2-8 depend from claim 1. Applicant respectfully asserts that dependent claims 2-8 are allowable for at least the same reasons as provided for claim 1. Claims 10-14 and 16-18 depend from claim 9. Applicant respectfully asserts that dependent claims 10-14 and 16-18 are allowable for at least the same reasons as provided for claim 9. Reconsideration is respectfully requested.

4. Claim Rejection – 35 U.S.C. § 103

The Examiner has rejected Claims 12 and 13 under 35 U.S.C. § 103(a) as being unpatentable over Kimura et al. Applicant respectfully traverses this rejection. A brief summary of Kimura et al. has been provided above.

Claims 12 and 13

Claims 12 and 13 depend from claim 9 and thus their allowability follows from claim 9. As noted above, claim 9 has been amended so that the downward force applied to the semiconductor wafer during planarization is exclusive applied by the spindle. In Kimura et al., and unlike claim 9, additional forces, in addition to the force applied by pressing the wafer against the abrasive cloth on the turntable, are applied separately via pressurized air supplied by an external source and water that has to be applied separately to the backside of the wafer prior to the polishing process. Therefore, Applicant respectfully asserts that dependent claims 12 and 13 are allowable for at least the same reasons as provided for claim 9.

SUMMARY

Applicant respectfully submits that pending claims 1-14 and 16-20 are allowable in their present form and respectfully requests that the Examiner grant allowance of this application. The Examiner is invited to contact the undersigned attorney for the Applicant via telephone if such communication would expedite this application.

Respectfully submitted,



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